

What is claimed is:

1. A rewriting device for rewriting data stored in a memory of a vehicle controller:
the rewriting device capable of communicating with the vehicle controller and
configured to wait without communicating with the vehicle controller until a
5 predetermined waiting time elapses from the time at which a signal for requesting
deletion of the data is sent to the vehicle controller or from the time at which a signal
indicative of start of deleting operation of the data is received from the vehicle
controller.
- 10 2. The rewriting device of claim 1, wherein the predetermined waiting time is the
time necessary to delete the data stored in the memory.
3. The rewriting device of claim 2, further configured to acquire from the vehicle
controller the deleting time prior to requesting deletion of the data, and to set the
15 acquired deleting time in the predetermined waiting time.
4. The rewriting device of claim 2, wherein the deleting time is calculated based on
the size of the data and the specification of the memory.
- 20 5. A rewriting device for rewriting data stored in a memory of a vehicle controller
with new data,
the rewriting device capable of communicating with the vehicle controller and
configured to wait without communicating with the vehicle controller until a
predetermined waiting time elapses from the time at which a signal for requesting the
25 vehicle controller to write the new data is sent to the vehicle controller or from the time
at which a signal indicative of start of writing operation of the new data is received from
the vehicle controller.
6. The rewriting device of claim 5, wherein the predetermined waiting time is the
30 time necessary to write the new data into the memory.

7. The rewriting device of claim 6, further configured to acquire from the vehicle controller the writing time prior to requesting the writing operation of the new data, and to set the acquired writing time in the predetermined waiting time.

5 8. The rewriting device of claim 6, wherein the writing time is calculated based on the size of the new data and the specification of the memory.

9. A rewriting system for rewriting data stored in a memory of a vehicle controller with new data, the system comprising:

10 a rewriting device capable of communicating with the vehicle controller, the rewriting device configured to wait without communicating with the vehicle controller until a predetermined waiting time elapses from the time at which a signal for requesting the vehicle controller to delete the data or write the new data is sent, or from the time at which a signal indicative of start of deleting operation of the data or writing operation of
15 the new data is received.

10. The rewriting system of claim 9, wherein the predetermined waiting time for the deleting operation is the time necessary to delete the data stored in the memory and the predetermined waiting time for the writing operation is the time necessary to write the
20 new data into the memory.

11. The rewriting system of claim 10, wherein the vehicle controller is configured to calculate the deleting time necessary to delete the data in the memory; and
wherein the deleting time is sent from the vehicle controller to the rewriting
25 device.

12. The rewriting system of claim 10, wherein the vehicle controller is configured to calculate the writing time necessary to write the new data into the memory; and
wherein the writing time is sent from the vehicle controller to the rewriting
30 device.

13. The rewriting system of claim 10, wherein the deleting time and writing time are calculated in accordance with the specification of the memory, respectively.

14. The rewriting system of claim 9, wherein the memory includes a non-volatile
5 memory.

15. A method for rewriting data stored in a memory of a vehicle controller via a rewriting device capable of communicating with the vehicle controller, the method comprising:

10 sending a request asking the vehicle controller to delete the data in the memory;
and

at the rewriting device, waiting until a predetermined waiting time elapses from the time at which the request is sent;

15 wherein, during the waiting time, there is no exchange of message between the vehicle controller and the rewriting device.

16. The method of claim 15, further comprising:

when the waiting time has elapsed, sending a request for the result of the deleting operation to the vehicle controller.

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17. The method of claim 15, further comprising:

calculating the time necessary to delete the data stored in the memory; and
setting the deleting time in the waiting time.

25 18. A method for rewriting data stored in a memory of a vehicle controller with new data via a rewriting device capable of communicating with the vehicle controller, the method comprising:

sending a request asking the vehicle controller to write the new data into the memory; and

30 at the rewriting device, waiting until a predetermined waiting time elapses from the time at which the request is sent;

wherein, during the waiting time, there is no exchange of message between the vehicle controller and the rewriting device.

19. The method of claim 18, further comprising:

5 when the waiting time has elapsed, sending a request for the result of the writing operation to the vehicle controller.

20. The method of claim 18, further comprising:

10 calculating the time necessary to write the new data into the memory; and
 setting the writing time in the waiting time.